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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/686,705

Applicant(s)

SAWANAGA ET AL.

Examiner

Tran Nguyen

Art Unit

3626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2008.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 6, 7, 9-23, 25-31 and 33-38 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1, 2, 6, 7, 9-23, 25-31 and 33-38 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____

DETAILED ACTION

Notice to Applicant

This communication is in response to the communication filed 12/02/2008.

Pending claim(s): 1-2, 6-7, 9-23, 25-31, 33-38. Cancelled claim(s): 3-5, 8, 24, 32.

Amended claim(s): 1, 6, 9, 21-23, 31, 33-38. Non-elected claim(s): 39-48.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) 14-15, 22 is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per claim 14, parent claim 1 recites:

a prediction unit connected to the network, configured to calculate an expectancy of the parameter data to be received in the future based on the stored parameter data;

Claim 14 recites:

Claim 14 (Previously Presented): The apparatus according to claim 1, wherein the expectancy is the parameter data received at a predetermined time.

As recited in parent claim 1, the "expectancy" is calculated. As recited in dependent claim 14, the "expectancy" is "parameter data".

The scope of claim 14 changes the "expectancy" from a calculated value to a received value. As such, Examiner cannot ascertain the scope of claim 14.

For purposes of applying prior art, Examiner interprets claim 14 to recite "wherein the expectancy represents parameter data received at a predetermined time".

As per claim 15, this claim is rejected for substantially the same rationale as applied to parent claim 14 above, and incorporated herein.

As per claim 22, parent claim 1 recites:

a first predetermined threshold level
and a second predetermined threshold level exceeding the first threshold level;

Claim 22 recites:

the predetermined threshold includes a first threshold level and a second threshold level exceeding the first threshold level,

The limitation "the predetermined threshold" in claim 22 lacks sufficient antecedent basis.

For purposes of applying prior art, Examiner does not consider this limitation in claim 22 to limit the scope of the claim because this limitation has already been recited in parent claim 1.

The limitation "the stored maintenance contract information" in claim 22 also lacks sufficient antecedent basis.

For purposes of applying prior art, Examiner interprets claim 22 to depend on claim 19.

Additional clarification is requested.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim(s) 1-2, 6-7, 9-23, 25-31, 33-38 is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

As per claim 1, this claim recites "a medical equipment management apparatus" comprising a plurality of "units".

Examiner, in applying the broadest and most reasonable interpretation in view of the specification and the level of ordinary skill in the art, interprets "unit" to encompass software *per se* embodiments. While Examiner acknowledges that "unit" may also encompass statutory embodiments, the inclusion of nonstatutory embodiments renders the entire claim nonstatutory.

Therefore, claim 1 recites an apparatus comprising solely of software *per se* structural limitations, and is found to be directed towards nonstatutory subject matter.

To properly overcome this rejection, Applicant is suggested to: a) amend the claim to require hardware structure, and/or b) specifically point out a controlling

definition for "unit" either in the specification as originally filed or by providing documentary evidence available to one of ordinary skill in the art at the time the application was originally filed.

All claims dependent thereon, namely claims 2, 6-7, 9-23, 25-30, fail to remedy these deficiencies, and are therefore rejected for at least the same rationale above, and incorporated herein.

As per claim 31, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

In particular, this claim recites:

- "a second reception unit... configured to receive a reference request for the date from a computer";
- "a providing unit... configured to allow the computer to refer to information".

While Examiner acknowledges that the claim recites a "computer", Examiner submits that the computer is not a claimed structured of the claimed apparatus.

Insofar as the "computer" is concerned, Examiner interprets this limitation to recite a functional limitation of the claimed apparatus.

As per claim 33, this claim recites a "method".

First, the method steps do not require the particulars of a "machine". Therefore, any structure capable of performing the recited functionality may be reasonably interpreted to be enveloped by the claim.

Second, while Examiner acknowledges that the claim recites "issuing a notification message", this limitation amounts to mere data transformation at best, and does not produce a physical "transformation".

Therefore, the claim fails the "machine or transformation" test, and is found to be directed towards nonstatutory subject matter.

To overcome this rejection, Applicant is suggested to: a) amend the essential steps to require the particulars of a "machine", and/or b) amend the claim to produce a physical "transformation".

As per claim 34, this claim is rejected for substantially the same rationale as applied to claim 33 above, and incorporated herein.

As per claim 35, Examiner acknowledges that this claim recites "a computer"; however, as discussed with respect to claim 33 above, the essential method steps do not require any particular "machine", and therefore encompasses any structure capable of interfacing with the recited "computer". In particular, the "calculating" and "determining" steps are performed without any recited structure.

Therefore, claim 35 fails the "machine or transformation" test.

As per claim 36, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

While Examiner acknowledges that the claim recites a "system" comprising a plurality of "apparatus" limitations, the claim does not recite any structure for these "apparatus" limitations.

Therefore, Examiner interprets "apparatus" to broadly encompass any structure capable of performing the recited functionality.

As discussed with respect to claim 1 above, Applicant is requested to provide a controlling definition for "apparatus" either from the specification as originally filed or from the level of ordinary skill in the art at filing.

Failing this, Applicant is suggested to amend the claim to recite hardware structures.

As per claim 37, this claim is similarly analyzed. In particular, "equipment" has not been defined as hardware equipment.

As per claim 38, this claim is rejected for substantially the same rationale as applied to claim 1 above, and incorporated herein.

Additional clarification is requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim(s) 1-2, 6-7, 9-17, 25, 27-28, 30, 33-34, 36-37 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Friz (5786994).

As per claim 1, Friz teaches a performance monitoring system (Abstract) capable of monitoring a medical imaging system (reads on "a medical equipment management apparatus for managing a medical equipment") (column 1 line 11 and throughout), wherein the medical imaging system is located in a hospital (reads on "a medical facility") (column 2 line 50-51) and is capable of communicating with the remote performance monitoring system over modem (reads on "a network") (Figure 3 label 48), the system comprising:

(a) software (reads on "a reception unit") capable of:

(i) communicating with the medical imaging system over modem (Figure 3 label 46);

(ii) receiving data descriptive of the medical imaging system located at the hospital (reads on "parameter data") (Figure 3 label 46);

(b) memory (reads on "a storage unit") capable of communicating with the medical imaging system (Figure 3 label 48) and storing the received data (Figure 3 label 50);

(c) software (reads on "a prediction unit") capable communicating with the medical imaging system over modem (Figure 3 label 48) and predicting a future status of the medical imaging system based on the current data (Figure 3 label 54, 56);

(d) software (reads on "a determination unit") capable of communicating with the medical imaging system over modem (Figure 3 label 48), wherein the software is capable of determining the future status of the medical imaging comprising:

(i) determining that the medical imaging system will run out of media by comparing the current data against a media threshold (reads on "a first predetermined threshold level") (column 15 line 4-10);

(ii) determining that the medical imaging system will be in an erroneous state by comparing the frequency of each type of error against a threshold (reads on "a second predetermined threshold level", wherein an error is more serious than a refill order, and is therefore considered to be "exceeding the first threshold level") (column 15 line 34-53);

(e) software (reads on "a second reception unit") capable of communicating with the medical imaging system over modem (Figure 3 label 48) and providing a user with a usage report (Figure 3 label 54) and an error report (Figure 3 label 56) (reads on "a reference request for the expectancy");

(f) software (reads on "a providing unit") capable of communicating with the medical imaging system over modem (Figure 3 label 48) and providing the user with the usage report and error report (Figure 3 label 54, 56);

(g) software capable of ordering media (reads on "a notification message via the network to a first address") when the media is low (reads on "the expectancy is determined to be between the first threshold level and the second threshold level") (Figure 3 label 62) and ordering a technician (reads on "a second address") when the frequency of a particular error indicates impending failure (reads on "the expectancy is determined to exceed the second threshold") (Figure 3 label 60).

As per claim 2, Friz teaches that the software is capable of ordering a technician service call (Figure 3 label 60).

As per claim 6, Friz teaches graphically displaying (reads on "a graph") the media usage report and the error report containing therein timestamps (reads on "chronological order") (Figure 8-9).

As per claim 7, Friz teaches displaying a media usage report (column 15 line 14-33) separately from the request to order media (column 12 line 26-30). Similarly, Friz further teaches displaying an error report containing thereon recorded errors to supplement the technician order (column 15 line 33-61).

As per claim 9, Friz teaches sending a media order request when the media is low and no error (reads on "when the expectancy is determined to be between the first threshold level and the second threshold level"), and a technician request when there is an impending fatal error (reads on "when the expectancy is determined to exceed the second threshold level"), as discussed above and incorporated herein.

As per claim 10, Friz teaches a media order (reads on "without urgency" wherein the imaging system will continue to operate on low media) and a technician order (reads on "an urgent maintenance service" wherein an impending fatal error will prevent the imaging system from being used), as discussed above and incorporated herein.

As per claim 11, Friz teaches comparing the media usage value to a threshold (column 15 line 6) and the error frequency to a threshold (column 15 line 49-53).

Examiner considers comparing a known value to a threshold to predict the future status of the value to be "statistically analyzing".

As per claim 12, Friz teaches storing data at different time intervals (column 11 line 45-65).

As per claim 13, Friz teaches media usage (Figure 8) and at least one machine component error (Figure 9 label ERROR DESCRIPTOR).

As per claim 14, Friz teaches that if no intervening action is taken, the imaging system will reach a certain condition, e.g. out of media, unusable (column 11 line 10-15, column 15 line 34-61).

As per claim 15, Friz teaches that the future condition of the imaging system may be predicted (reads on "the predetermined time is designated"), as discussed above and incorporated herein.

As per claim 16, Friz teaches that the system is capable of providing the media and technician orders (reads on "expectancy") through a computer network (Figure 3 label 60, 62).

As per claim 17, this claim is rejected for substantially the same rationale as applied to claim 16 above, and incorporated herein.

In particular, the "expectancy" *per se* is considered to be "information of the medical equipment". Therefore, the applied art need not teach any additional information to meet this limitation.

As per claim 25, Friz teaches that a technician is capable of obtaining system data (column 15 line 54-61).

As per the set of claim(s): 27, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 25, respectively, and incorporated herein.

In particular, Examiner considers the technician system to be part of the remote performance monitoring system, and is therefore considered to be "a computer provided in the apparatus".

As per the set of claim(s): 28, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 6, respectively, and incorporated herein.

As per claim 30, Friz teaches periodically polling the equipment (column 3 line 23-33).

As per the set of claim(s): 33, 34, 36, 37, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 1, 1, 1, respectively, and incorporated herein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim(s) 18, 29 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Official Notice.

As per claim 18, Friz does not teach "an Internet web site".

Official Notice is taken that displaying data on a Web site accessible via the Internet is old and well established in any art.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of the Official Notice within the embodiment of Friz with the motivation of providing accessible data to remote computers.

As per claim 29, Friz teaches that manual generation of reports by a technician is known in the art (column 3 line 31-32). Friz further teaches automatic periodic polling to eliminate the need for manual report generation (column 3 line 23-33).

Friz does not teach "calculates the expectancy in response to the reception of the reference request".

Official Notice is taken that during machine maintenance, it is old and well established in the art to manually run a status report between periodic polling periods.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of the Official Notice within the embodiment of Friz with the motivation of obtaining the most current equipment status before the next polling period, such feature would be useful when performing diagnostics or generating management reports, wherein the status is desired immediately before the next polling interval.

Claim(s) 19, 21-23 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Lie (An Algorithm for Preventive Maintenance Policy).

As per claim 19, Friz teaches that the system is capable of determining the future status of the imaging system by comparing the error frequency against a threshold to prospectively identify errors and correct them before the user is affected (column 15 line 34-61).

Examiner considers this type of maintenance to be "preventive maintenance", wherein the system is repair prior to any user complaint.

Friz does not teach "determines the value based on the stored maintenance contract information".

Lie teaches two types of preventive maintenance: 1P and 2P (page 71 column 1 paragraph 2). Lie further teaches that the optimum preventive maintenance policy comprises doing 1P maintenance until a particular time, and then switching to 2P maintenance (page 74 section 2.5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Lie within the embodiment of Friz with the motivation of providing the optimum preventive maintenance policy (Lie; page 74 section 2.5).

As per the set of claim(s): 21, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 19, respectively, and incorporated herein.

As per claim 22, Friz teaches reporting errors and ordering technician service, as discussed above and incorporated herein.

Friz does not teach:

(a) "a first content when the stored maintenance information is a first type and the expectancy is determined to exceed the second threshold level";

(b) "a second content when the stored maintenance information is the first type and the expectancy is determined to be between the first threshold level and the second threshold level";

(c) "a third content when the stored maintenance contract information is a second type and the expectancy is determined to exceed the second threshold level";

(d) "does not issue the notification message when the stored maintenance contract information is the second type and the expectancy is determined to be between the first threshold level and the second threshold level".

Lie teaches preventive maintenance when the system is operating (reads on "a first threshold level") and corrective maintenance when the system is failed (reads on "a second threshold level") (page 71 column 1 Section 1 paragraph 2).

Examiner considers the status of a system requiring corrective maintenance to "exceed" the status of a system requiring only preventive maintenance because the failed system is failed, and is considered to be more serious than a system requiring only routine maintenance.

Lie further teaches:

(a) issuing a corrective maintenance request (reads on "a first content when the stored maintenance information is a first type and the expectancy is determined to exceed the second threshold level") (page 71 column 1 Section 1 paragraph 3-4);

(b) issuing a preventive maintenance request when the system is in a 2P state (reads on "a second content when the stored maintenance information is the first type and the expectancy is determined to be between the first threshold level and the second threshold level") (page 71 column 2 paragraph 1-2);

(c) issuing a simple preventive maintenance request when the system is in a 1P state (reads on "a third content when the stored maintenance contract information is a

second type and the expectancy is determined to exceed the second threshold level") (page 71 column 2 paragraph 1-2);

(d) the system omitting some service requests when the system is in a 1P state (reads on "does not issue the notification message when the stored maintenance contract information is the second type and the expectancy is determined to be between the first threshold level and the second threshold level").

In particular, Examiner considers the 2P state to be "a first type" and the 1P state to be "a second type". Accordingly, the 1P service request omits some elements that would otherwise be covered in the 2P service request.

Additionally, the claim does not require that the "first", "second", and "third" content actually be different content. Therefore, a single content alone would cover all claimed embodiments regardless of the state of the expectancy and the contract information.

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Lie within the embodiment of Friz with the motivation of providing the optimum preventive maintenance policy (Lie; page 74 section 2.5).

As per the set of claim(s): 23, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 22, respectively, and incorporated herein.

In particular, Examiner considers the 1P and 2P states to be "a determining condition", wherein the system switches from one to the other and affects the type of service requests recorded by the system (Lie; page 74 column 1 Section 2.5).

Claim(s) 20 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Lie as applied to parent claim 19 above, and further in view of Babula (6381557).

As per claim 20, Friz and Lie do not teach "an external terminal".

Babula teaches a field service unit capable of accessing service data (Figure 5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Babula within the embodiment of Friz and Lie with the motivation of enabling technicians to adjust the maintenance policy remotely.

Claim(s) 26 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Friz in view of Babula.

As per claim 26, Friz teaches that the performance monitoring system is remote from the imaging system (Figure 3 label 46).

Friz does not teach "a computer provided in the medical facility".

Babula teaches a field service unit capable of accessing service data (Figure 5).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Babula within the embodiment of Friz with the motivation of enabling technicians to adjust the maintenance policy remotely.

Claim(s) 31, 35, 38 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over Ridolfo (6735549) in view of Friz and Mairs (5874960).

As per claim 31, Ridolfo teaches a system capable of predicting the date of failure for plant equipment over a network (Figure 2 label 7).

Ridolfo does not teach "medical equipment".

Friz teaches predicting the error conditions of medical imager (Abstract and throughout).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Friz within the embodiment of Ridolfo with the motivation of ensuring that equipment is repaired, refurbished, or replaced before the equipment fails (Ridolfo; column 5 line 7-14, Friz; column 15 line 54-57).

Ridolfo further teaches that the system comprises:

(a) a data acquisition system (reads on "a reception unit") capable of accessing the plant equipment over network (reads on "receive parameter data") (Figure 2 label 2);

(b) a digital computer (reads on "a storing unit") capable of storing the acquired data (Figure 2 label 3);

(c) a probability-of-failure predictor module (reads on "a prediction unit") capable of communicating with the network and predicting the probability of failure based on the acquired data (Figure 2 label 5);

(d) a date-of-failure predictor module (reads on "a determination unit") capable of communicating with the network and determining the date when the plant equipment is predicted to fail (Figure 2 label 6);

(e) an engineering workstation capable of requesting the date of failure via the network (Figure 2 label 8);

(f) software capable of providing the date (Figure 2 label 6);

(g) a video display unit capable of displaying the date (Figure 2 label 8).

Ridolfo and Friz do not teach "a second computer".

Mairs teaches a remote desktop application capable of sharing an application between a plurality of computers (Abstract and throughout).

At the time the invention was made, it would have been obvious to one of ordinary skill in the art to include the teachings of Mairs within the embodiment of Ridolfo and Friz with the motivation of sharing an application with a remote user at a shadow computer system (Mairs; column 1 line 20-23).

As per the set of claim(s): 35, 38, this set of claim is rejected for substantially the same rationale as applied to the rejection of the set of claim(s): 31, 31, respectively, and incorporated herein.

Response to Arguments

Applicant's arguments filed 12/02/2008 have been fully considered but they are not persuasive.

On page 16 Applicant argues:

However, Applicants respectfully submit that Fig fails to teach or suggest "a determination unit connected to the network, configured to *determine a value of the expectancy based on the relation of the expectancy to a first predetermined threshold level and a second predetermined threshold level exceeding the first threshold level,*" as in Applicants' Claim 1.

Applicant provides no definition for "expectancy".

In determining the scope of the claim, Examiner relies on Merriam-Webster Online Dictionary, which defines "expectancy" as "something expected", and "expect" as "to anticipate or look forward to the coming or occurrence of".

Applicant also provides no definition for "threshold".

Merriam-Webster Online Dictionary defines "threshold" as "a level, point, or value above which something is true or will take place and below which it is not or will not".

Applicant also provides no definition for "exceeding".

Merriam-Webster Online Dictionary defines "exceed" as "to be greater than or superior to".

According to the definitions afforded by Merriam-Webster Online Dictionary, Examiner interprets the argued limitation to recite:

- (a) predicting a future status of the medical equipment; and
- (b) comparing the predicted future status with a first and a second threshold to determine a conclusion about the future status, wherein the second threshold is greater than or superior to the first threshold.

Friz teaches (column 14-15):

65

The system 46 also obtains the media usage data from memory 50 to determine the amount of imaging media 22

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used for inclusion in the combined modality/media usage report. At the same time, system 46 accumulates a media usage value based on the amount of usage of imaging media 22 over a plurality of polling periods. Over consecutive polling periods, system 46 continuously compares the running media usage value to a threshold to determine whether the user of the particular laser imager 14₁-14_N should be sent an additional amount of imaging media 22. If the media usage value exceeds the threshold, system 46 automatically initiates an order to send an additional amount of imaging media 22 to the user of the particular laser imager 14₁-14_N.

To generate the error report, system 46 accesses the error data stored in memory 50 for a particular laser imager 14₁-14_N over a plurality of polling periods. The error data stored in memory 50 details any errors that occurred within the particular laser imager 14₁-14_N since the last polling period, providing the type of error, the time the error occurred, and the type of imaging media 22 being used when the error occurred. The errors may include incorrect operation of various electromechanical components within laser imager 14₁-14_N, as sensed by processor 16₁-16_N. The system 46 includes in the error report all errors logged since the last polling period for analysis by a technician and/or a user of the laser imager 14₁-14_N. The system 46 also may include the frequency of each type of error for a particular laser imager 14₁-14_N. The system 46 compares the frequency of each type of error to a threshold. If the frequency of a particular error exceeds the threshold, system 46 recognizes a potential oncoming fault condition and automatically initiates an order for a service technician to visit the location associated with the particular laser imager 14₁-14_N. Thus, system 46 enables a degree of anticipation of conditions that could render the laser imager 14₁-14_N unusable, and proactively initiates a service call without the need for a request by the user of the laser imager.

According to Friz, the system is capable of predicting when the user will be low and/or run out of media, and should be sent addition media refills. Similarly, Friz also teaches that the system is capable of anticipating conditions that could render the medical imaging system unusable.

Accordingly, "proactively" implies that corrective actions are taken before the medical imaging system is unusable.

Therefore, Examiner considers predicting the future status of the medical imaging system comprising the future media supply and future fatal errors to be an "expectancy" of the medical imaging system based on the definition afforded by

Merriam-Webster Online Dictionary, wherein the system is capable of proactively identifying these conditions before they happen.

Additionally, Examiner considers the low media threshold to be the "first threshold", and the fatal error threshold to be the "second threshold".

Examiner submits that an out of paper/media condition is not as serious as a fatal error. This assertion is confirmed by Friz who teaches (column 15):

If the media usage value exceeds the threshold, system 46 automatically initiates an order to send an additional amount of imaging media 22 to the user of the particular laser imager 14₁-14_N. 10

Thus, system 46 enables a degree of anticipation of conditions that could render the laser imager 14₁-14_N unusable, 55 and proactively initiates a service call without the need for a request by the user of the laser imager. As a further advantage, system 46 could be provided with a direct interface to a service management system (SMS), such as OpenUPTIME™, to log a service call for assignment and 60 scheduling by a dispatcher using the SMS.

According to Friz, when the medical imaging system is low on media, additional imaging media is sent to the user of the medical imaging system; however, a fatal error requires a technician to be dispatched.

Examiner considers conditions addressable by the user, e.g. low paper/media, to be less serious than conditions requiring the attention of a specially trained technician, e.g. a fatal error that could render the medical imaging system unusable.

Based on the definition afforded by Merriam-Webster Online Dictionary, Examiner submits that Friz teaches that "a second predetermined threshold level exceeding the first threshold level".

If Applicant disagrees with Examiner's interpretation, Applicant is requested to provide a controlling definition for the claim terms either from the specification as originally filed, or by providing documentary evidence available to one of ordinary skill in the art at the time the invention was made.

Similarly, if Applicant disagrees that a broken machine is not more serious than an out of paper error, Applicant is requested to provide documentary evidence discussing why one of ordinary skill in the art would consider an out of paper error to be more serious than a broken machine.

Applicant is reminded that Friz teaches that an out of paper/media error could be handled by a user, whereas a fatal error requires the attention of a specially trained technician.

On page 16-17 Applicant further argues:

Friz also fails to teach or suggest "an informing unit configured to issue a notification message via the network to a first address when the expectancy is determined to be between the first threshold level and the second threshold level and to a second address when the expectancy is determined to exceed the second threshold," as recited in Claim 1.

Friz teaches (column 15):

If the media usage value exceeds the threshold, system 46 automatically initiates an order to send an additional amount of imaging media 22 to the user of the particular laser imager 14₁-14_N. 10

Thus, system 46 enables a degree of anticipation of conditions that could render the laser imager 14₁-14_N unusable. 55 and proactively initiates a service call without the need for a request by the user of the laser imager. As a further advantage, system 46 could be provided with a direct interface to a service management system (SMS), such as OpenUPTIME™, to log a service call for assignment and 60 scheduling by a dispatcher using the SMS.

According to Friz, the system is capable of sending a media order (reads on "a first address") and interfacing with the SMS (reads on "a second address") to schedule a service call.

In particular, it is clear that these two types of notifications are sent to different places for the following reason.

Although Friz does not explicitly teach where the media order is sent, Friz explicitly teaches that service requests are sent to the SMS. Therefore, regardless of where the media order is sent, the media order and service requests are not sent to the same place.

Additionally, Friz teaches (column 2):

In existing medical imaging systems, a staff person also is required to monitor the supply of imaging media to ensure availability for laser imager services, and periodically pre- 60 pare order forms requesting delivery of additional imaging media. To accurately gauge demand, the staff person should be familiar with average usage, and should monitor current usage to avoid any possibility of an imaging media shortage.

Therefore, it is clear that media delivery do not require a specially trained technician because one of ordinary skill in the art recognizes that sending a trained technician to deliver paper would be prohibitively expensive because the end user is installing the media.

If Applicant disagrees, Applicant is requested to discuss why Applicant believes that Friz teaches that the media order is sent to the SMS, which would result in both types of notifications being sent to the same address.

Additionally, insofar as “when the expectancy is determined to be between the first threshold level and the second threshold level” and “when the expectancy is determined to exceed the second threshold”, the limitation “when” renders these limitations to be optional.

Therefore, the applied art need not teach any of these limitations if the expectancy is never determined to exceed either threshold.

To overcome this issue, Applicant is suggested to positively recite this functionality.

Nevertheless, Examiner has applied art to these optional limitations.

In particular, Examiner considers an out of media condition and no fatal errors to be “when the expectancy is determined to be between the first threshold level and the second threshold level”. In this embodiment, the system of Friz only sends the refill order, and no service call is scheduled.

Examiner further considers a fatal error condition to be ““when the expectancy is determined to exceed the second threshold”.

Applicant is hereby advised that the claim does not require that the thresholds be numerical values, wherein the expectancy is a numerical value that is compared to these two thresholds.

Examiner broadly interprets these limitations in view of the specification and the level of ordinary skill in the art at the time the invention was made.

Therefore, “when the expectancy is determined to be between the first threshold level and the second threshold level” does not require a numerical expectancy value bounded by upper and lower thresholds as disclosed by Applicant in Figure 10.

Examiner interprets this limitation to recite that the expectancy has exceeded the first threshold, but not the second threshold.

Turning to Friz, Friz teaches that media orders and service calls are placed independently of each other. Therefore, the applied art fully meets the claimed limitations, wherein a low media condition with no fatal error results in a media order, and a fatal error with or without a low media condition results in an SMS call.

Applicant has not positively excluded the system from sending out a notification when the second threshold is exceeded. In fact, a system capable of sending out the message to the first address when the second threshold is exceeded fully meets the claim limitations based on “comprising”.

On page 17 Applicant argues:

the arguments presented

above with respect to Claim 1 are also applicable to Claims 33-34 and 36-37.

Applicant's arguments merely rehash arguments previously addressed above, and incorporated herein.

Art Unit: 3626

As per claims 31, 35, 38, on page 19 Applicant argues:

the outputted
video signal is not a notification message sent over the network according to the determined
date.

Ridolfo teaches:

ENTER PROBABILITY THAT EQUIPMENT
WILL FAIL PRIOR TO CALENDAR DATE

4.0%

80

THE CORRESPONDING CALENDAR DATE IS

APRIL 18, 2002

81

FOR THIS DATE THE FOLLOWING PROBABILITIES EXIT

PROBABILITY OF EQUIPMENT FAILURE
OCCURRING BEFORE THIS DATE

4.0%

82

PROBABILITY OF EQUIPMENT FAILURE
OCCURRING AFTER THIS DATE

96.0%

83

Detailed description: The flowchart consists of two main rectangular boxes. The top box contains the text 'ENTER PROBABILITY THAT EQUIPMENT WILL FAIL PRIOR TO CALENDAR DATE' and a rounded rectangular input field containing '4.0%'. A callout line with the number '80' points to this input field. The bottom box contains the text 'THE CORRESPONDING CALENDAR DATE IS' and a rounded rectangular output field containing 'APRIL 18, 2002', with a callout line and number '81' pointing to it. Below this, a smaller rectangular box contains the text 'FOR THIS DATE THE FOLLOWING PROBABILITIES EXIT'. Underneath, there are two rows of text and output fields. The first row has the text 'PROBABILITY OF EQUIPMENT FAILURE OCCURRING BEFORE THIS DATE' and a rounded rectangular field with '4.0%', with a callout line and number '82' pointing to the field. The second row has the text 'PROBABILITY OF EQUIPMENT FAILURE OCCURRING AFTER THIS DATE' and a rounded rectangular field with '96.0%', with a callout line and number '83' pointing to the field.

FIG.10

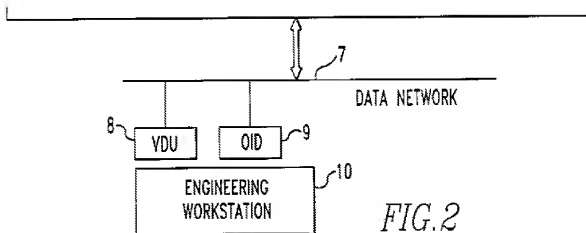
Ridolfo further teaches (column 10-11):

FIG. 10 illustrates the interactive display associated with
65 the Date-of-Failure Module (Interactive Predictor Date
Display) which is outputted on the VDU (item 8 of FIG. 2).
The plant staff may enter a probability number 80, which

11

corresponds to the probability of equipment failing prior to
a calendar date, via an appropriate OID (item 9 of FIG. 2)
such as a keyboard or keypad. The display outputs the
calendar date 81 which corresponds to the entered
probability, and also displays the probability that the overall
system will fail prior to this date 82 (as originally specified/
entered by the plant staff) and the probability that the overall
system will fail after this date 83.

Ridolfo further teaches:



According to Ridolfo, the system is capable of displaying the predicted date of failure, and is considered to be "a notification message... according to the determined date".

On page 19 Applicant further argues:

The video display unit in Ridolfo is not another computer across a network,

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tran (Ken) N. Nguyen whose telephone number is 571-270-1310. The examiner can normally be reached on Monday - Friday, 9:00 am - 5:00 pm Eastern.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, C. Luke Gilligan can be reached on 571-272-6770. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. N./
Examiner, Art Unit 3626
01/07/2008

/Robert Morgan/
Primary Examiner, Art Unit 3626